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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/575,885	05/22/2000	Donald E. Crowe	Crowe 2-2-2	2754

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EXAMINER	
HOM, SHICK C	

ART UNIT	PAPER NUMBER
2666	3

DATE MAILED: 07/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/575,885	CROWE ET AL.	
	Examiner	Art Unit	
	Shick C Hom	2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *5/22/00 &10/2/01* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6-10 and 13-18* is/are rejected.

7)☒ Claim(s) *5,11 and 12* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

2. Claims 2-6 and 8-18 are objected to because of the following informalities: in claim 13 line 3 delete "CPE" and insert ---customer premises equipment CPE---, for clarity. In claims 2-6 line 1 delete "The invention" and insert ---The multi-services access system---. In claims 8-12 and 14-18 line 1 delete "The invention" and insert ---The method---, for clarity. In claim 16 line 2, the words "a digital stream" seem to refer back to "a digital stream" recited in claim 13 line 8. If this is true, it is suggested changing "a digital stream" to ---the digital stream---. In claim 17 line 4, the words "a packet-switched network" seem to refer back to "a packet-switched network" recited in claim 13 lines 6-7. If this is true, it is suggested

changing "a packet-switched network" to ---the packet-switched network---. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 16 line 3 which recite "a packetized derived signal" is not clear as to whether it is reciting ---the packetized derived signals--- of claim 13 line 3.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 7-10 and 13-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Lucas (4,539,676).

Regarding claim 13:

Lucas discloses the method for processing signals in a multi-services access system for a telecommunication network, comprising the steps of: receiving packetized data signals and packetized derived signals from a packet-mode CPE unit (see col. 1 line 56 to col. 2 line 18 where the interactive data corresponds to the packetized data signals and the voice and bulk data corresponds to the derived signals); determining whether each packet received from the packet-mode CPE unit is a data packet or a derived packet (see col. 2 lines 19-42 where the routing bit is used to determine whether the packet is a data packet or a derived packet, i.e. interactive data or voice and bulk data); transmitting each data packet from the packet-mode CPE unit directly to a packet-switched network for packet-based switching (col. 2 lines 43-55); and converting each derived packet from the packet-mode CPE unit into a digital stream and transmitting the digital stream directly to a circuit-switch network for circuit-based switching (see col. 15 line 17 to col. 16 line 7 which recite data message being converted into a multiplexed message format corresponding to that illustrated in FIG. 5 and the abstract which further recite the voice messages data stream being routed to the circuit switch).

Regarding claim 7:

Lucas discloses the method for processing signals in a multi-services access system for a telecommunication network, the access system capable of being coupled directly to one or more local packet-mode CPE units, a packet-switched network, and a circuit-switched network (see Fig. 1), comprising the steps of: transmitting each upstream packetized data signal received from a local packet-mode CPE unit to the packet-switched network; if a downstream packetized data signal received from the packet-switched network is destined for a local packet-mode CPE unit, then transmitting the downstream packetized data signal to the local packet-mode CPE unit; converting each upstream packetized derived signal received from either a local packet-mode CPE unit or the packet-switched network into an upstream digital stream and transmitting the upstream digital stream to the circuit-switched network (see col. 1 line 56 to col. 2 line 18 where the interactive data corresponds to the packetized data signals and the voice and bulk data corresponds to the derived signals, and col. 2 lines 43-55); if a downstream digital stream received from the circuit-switched network is destined for a local packet-mode CPE unit, then converting the downstream digital stream into a downstream packetized derived signal and transmitting the

downstream packetized derived signal to the local packet-mode CPE unit; and if a downstream digital stream received from the circuit-switched network is destined for a remote packet-mode CPE unit, then converting the downstream digital stream into a downstream packetized derived signal and transmitting the downstream packetized derived signal to the packet-switched network for routing to the remote packet-mode CPE unit (see col. 15 line 17 to col. 16 line 7 which recite data message being converted into a multiplexed message format corresponding to that illustrated in FIG. 5 and the routing bit used to select transmissions from the circuit switch, e.g. to the packet-mode CPE unit and col. 2 lines 15-42).

Regarding claims 8 and 14:

Lucas discloses wherein the access system does not have individual dedicated resources for the packet-mode CPE unit (col. 1 lines 18-34 and col. 1 line 56 to col. 2 line 55).

Regarding claims 9 and 15:

Lucas discloses wherein the access system dynamically allocates, in real time, system resources for the packet-mode CPE unit (col. 3 lines 28-39 and col. 5 line 57 to col. 6 line 7).

Regarding claims 10 and 16:

Lucas discloses the steps of receiving a digital stream directly from the circuit-switched network; converting the digital stream into a packetized derived signal; and transmitting the packetized derived signal to the packet-mode CPE unit (see col. 15 line 17 to col. 16 line 7 which recite data message being converted into a multiplexed message format corresponding to that illustrated in FIG. 5 and the routing bit used to select transmissions from the circuit switch, e.g. to the packet-mode CPE unit).

Regarding claim 17:

Lucas discloses wherein the access system enables the packet-mode CPE unit to transmit and receive packetized derived signals to and from the circuit-switched network without using any packet-switched network and without using any external gateway interconnecting the circuit-switched network and a packet-switched network (col. 2 lines 43-55 and col. 9 lines 30-54).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1-4 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lucas (6,320,867) in view of Bellenger et al. (4,539,676).

Regarding claim 18:

Lucas discloses the method as described in paragraph 5 of this office action.

Lucas did not disclose wherein the multi-services access system is a multi-services digital loop carrier (DLC) system; the packet-mode CPE unit is a DSL CPE unit; and the packetized derived signals comprise packetized derived voice signals.

Bellenger et al. teach that it is known to provide telephone company trunk components and switches as well as premises wiring and long local loops, whereby the subscriber lines transport a plurality of different traffic types including voice traffic, i.e. POTS data traffic from voice-band modems such as V.34 and broad-band traffic such as HDSL and other types of digital subscriber lines, the two main categories being ADSL and SDSL as set forth at col. 12 line 50 to col. 13 line 13 and col. 40 line 60 to col. 41 line 6 in the field of digital and multiplex communications for the purpose of providing a hierarchical system for converting digital transmissions on a network between a first protocol and a second protocol in order to increase data handling capabilities which clearly anticipate the multi-services access system being a multi-services digital loop carrier (DLC) system; the packet-mode CPE unit being a DSL CPE unit; and the packetized derived signals comprise packetized derived voice signals.

Regarding claim 1:

Lucas discloses the system as described in paragraph 5 of this office action.

Lucas did not disclose the derived-signal server coupled to a packet-mode card, the packet interface, and the controller, which in turn is coupled to the circuit interface as in claim 1.

Bellenger et al. which recite in col. 18 lines 22-36. that it is known to provide the global control unit including the circuit-switched network card, and packet-switched network card, whereby the global control unit interfaces not only with networks, but also with a server clearly anticipate the derived-signal server coupled to a packet-mode card, the packet interface, and the controller, which in turn is coupled to the circuit interface as in claim 1.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the multi-services access system being a multi-services digital loop carrier (DLC) system; the packet-mode CPE unit being a DSL CPE unit as in claim 18; and the packetized derived signals comprise packetized derived voice signals and the derived-signal server coupled to a packet-mode card, the packet interface, and the controller, which in turn is coupled to the circuit interface as in claim 1 and as taught by Bellenger et al. to the system of

Lucas because Bellenger et al. teach the desirable advantage of providing a hierarchical system for converting digital transmissions on a network between a first protocol and a second protocol in order to increase data handling capabilities and said increased data handling capabilities being desirable to achieve more efficient system operation in Lucas.

Regarding claim 2:

Lucas discloses wherein the access system does not have individual dedicated resources for the packet-mode CPE unit (col. 1 lines 18-34 and col. 1 line 56 to col. 2 line 55).

Regarding claim 3:

Lucas discloses wherein the access system dynamically allocates, in real time, system resources for the packet-mode CPE unit (col. 3 lines 28-39 and col. 5 line 57 to col. 6 line 7).

Regarding claim 4:

Lucas discloses wherein the circuit-mode card converts each upstream circuit-mode signal into an upstream digital stream and forwards the upstream digital stream to the controller, which forwards the upstream digital stream to the circuit interface, which transmits the upstream digital stream to the circuit-switched network; and if a downstream digital stream received by the controller from the circuit interface is destined for a

circuit-mode CPE unit, then the controller forwards the downstream digital stream to the circuit-mode card, which converts the downstream digital stream into a downstream circuit-mode signal and transmits the downstream circuit-mode signal to the circuit-mode CPE unit (see col. 15 line 17 to col. 16 line 7 which recite data message being converted into a multiplexed message format corresponding to that illustrated in FIG. 5 and the routing bit used to select transmissions from the circuit switch, e.g. to the packet-mode CPE unit).

Allowable Subject Matter

8. Claims 5-6 and 11-12 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
Crutcher et al. disclose a method and apparatus for facilitating tiered collaboration.

Deng discloses a system for interconnecting packet-switched and circuit-switched voice communications.

Jonas et al. disclose a method and apparatus for transmitting and routing voice telephone calls over a packet switched computer network.

10. **Any response to this nonfinal action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (2600 Receptionist at (703) 305-4750).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shick Hom whose telephone number is (703) 305-4742. The examiner's regular

work schedule is Monday to Friday from 8:00 am to 5:30 pm EST and out of office on alternate Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao, can be reached at (703) 308-5463.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

DANG TON
PRIMARY EXAMINER

SH

July 11, 2003